No. 397

In the

Supreme Court of the United States

OCTOBER TERM, 1936

THE HENDERSON COMPANY,

Appellant,

vs.

ERNEST O. THOMPSON, C. V. TERRELL AND LON A. SMITH,

Appellees.

Appeal from the District Court of the United States for the Western District of Texas.

APPELLANT'S REPLY TO APPELLEES' BRIEF

Under Part 1 of their argument, beginning on page 15 of their brief, appellees say that the Texas Legislature has power to regulate the production and use of natural gas to (1) prevent waste thereof and, to (2) protect the correlative rights of owners and operators in a common gas reservoir.

Under this heading they say that at the time of the enactment of House Bill 266 there existed two principal

evils in the natural gas industry: (1) inferior utilization and (2) disproportionate production of natural gas.

We take issue with appellees and say that as shown by the record in this case, as well as the record in the case of Ernest O. Thompson et al. versus Consolidated Gas Utilities Corporation et al., No. 89, now pending in this Court, the Legislature of Texas, at the time of the enactment of House Bill 266, was confronted with these two questions: (1) the stopping of the popping into the air of residue gas in the Panhandle field which was occurring to the approximate extent of one billion cubic feet per day, and (2) the compelling of the pipe line companies in the Panhandle field to share their markets with other producers of gas who had no market or outlet for their gas.

We make no contention that the Legislature of Texas did not have the power to, or under the existing conditions then prevailing should not, prevent the physical waste of gas in the Panhandle field by amending the law for the purpose of preventing the popping of gas into the air. The provisions of the act, prohibiting popping of gas into the air, are, in our opinion, a valid exercise of the police power and bear a reasonable relation to the prevention of physical waste and conservation of the natural resources of Texas, and concerning such provisions appellant has made no complaint. However, as to whether or not the Legislature of Texas has the power to enforce ratable production of gas irrespective of the question of waste, has no bearing on the issues presented in this appeal. Appellant does not chal-

lenge here the validity of the ratable production provisions of the act. We say it was not necessary for the Legislature of Texas to classify and distinguish between sweet and sour gas in order to prevent the popping of gas into the air, and neither is it necessary for the Legislature of Texas to so classify such gas in order to accomplish the object of ratable production, assuming it has power to do so irrespective of preventing waste.

On pages 17, 18 and 19 of their brief appellees say that prior to the enactment of the sour gas law the only producers who were able to produce any gas from the sweet gas portion of the Panhandle field were the pipe line companies or those having connection with such companies; that in the passage of the sour gas law the statute was liberized so that those without light and fuel connections could make beneficial use of their gas, and that the result of the change of policy expressed in the sour gas law was that many stripping plants were constructed to extract the natural gasoline content of sweet gas and carbon black factories commenced the use of sweet gas in the manufacture of carbon black. We say that this statement is not supported by the record. While it is true that three new gasoline extraction plants were constructed in the sweet gas area after the passage of the sour gas law, neither of such plants were able to make any sale of their residue gas to carbon black factories, but popped the residue gas into the air, however, the record does not disclose that there was a single carbon black factory erected in the sweet gas area either before or after the passage of the sour gas law, for the

purpose of utilizing sweet gas in the manufacture of carbon black. Indeed the record shows and appellees, on pages 42 and 43 of their brief, say that the carbon black industry, including existing carbon black factories, equipment and residue transportation lines from natural gasoline plants, had become established in the Texas Panhandle oil and gas field prior to August 12, 1931, with the following exceptions: One in Moore County, the plant of the Combined Carbon Company which is located at Sanford, Texas, in Hutchinson County, and the plant of the United Carbon Company, likewise located at Sanford, in Hutchinson County, Texas. Not one of these plants was constructed for the purpose of utilizing sweet gas in the manufacture of carbon black (R. 300). Neither the Moore County carbon black plant nor the United Carbon Company's plant at Sanford, Texas, were constructed until after the passage of House Bill 266 which prohibited the use of sweet gas in the manufacture of carbon black. With reference to the Combined Carbon Company's plant, appellant entered into its contract with the Combined Carbon Company in October, 1934, and such contract contemplated delivery of residue gas by appellant to the Combined Carbon Company for the purpose of manufacturing carbon black from the various leases then owned by appellant, all of which contained varying degrees of hydrogen sulphide, but, as shown by the record, after the passage of the act under attack, fourteen of appellant's wells were classified by the Commission as containing less than one and one-half (1½) grains of hydrogen sulphide per one hundred

cubic feet and the remaining seven wells connected to appellant's plant, were classified as sour gas wells.

Therefore, we say that the problem before the Legislature was not to prevent the inferior use (as termed by appellees on page 23 of their brief) of sweet gas in the manufacture of carbon black, as the record does not disclose that the carbon black manufacturers were using, or intended to use, any of the sweet gas for the manufacture of carbon black, but we reiterate that the real object confronted by the Legislature and which it attempted to accomplish was prevention of physical waste of gas by prohibiting the popping of the same into the air and the requiring of the pipe line companies to share their markets and transportation facilities with other producers without outlet. Three times previously the State had unsuccessfully attempted to force the pipe line companies to purchase gas belonging to others who had no market, and in House Bill 266 the Legislature conceived the idea for the accomplishment of this object by providing for ratable production. In order to bolster up this feature of the act, they made the classification in question between sweet and sour gas and thereby attempted to dedicate all of the sweet gas reserves to the pipe line companies, who were in control of the markets for the only use that the statute authorized sweet gas to be utilized for. The Legislature evidently concluded that if it made the classification in question, thereby apparently dedicating to the pipe line companies all of the sweet gas reserves, it could thereby compel the pipe line companies to share their markets with all producers of sweet gas through the medium of ratable production.

On page 23 of appellees' brief, they say that ample authority exists for the Legislature of Texas to prevent the wasteful use of a natural resource of the State. Appellant makes no contention otherwise. On the other hand, it recognizes that the Legislature of Texas, under its police power, has authority to regulate the production and use of its natural resources, including natural gas, for the purpose of conserving the same and preventing physical waste thereof. But we say this is as far as the Legislature of Texas can go, and any statute enacted by it, regulating the production and use of natural gas, must bear a reasonable relation to its conservation and the prevention of its waste, and unless it does it cannot stand. It is appellant's contention that the provisions of the act under attack, have and bear no such relation.

Further, under this heading on page 26 of their brief, appellees say that the Legislature of Texas has power to regulate the production and use of natural gas in order to protect and adjust the correlative rights of common owners in a common reservoir, and they cite a number of authorities under this abstract proposition and quote from the leading case of *Ohio Oil Company vs. Indiana*, 177 U. S. 194, 24 Law. Ed. 729, decided by this Court, and also from the case of *Walls vs. Midland Carbon Company*, 254 U. S. 300, 65 Law. Ed. 276. Of course, the cases cited have no application for the reason that the rule of property prevailing in Indiana and Wyoming, is different from the rule of property in Texas. Under the property rule prevailing in Indiana and Wyoming at the time of the decision of such cases, the owner, although entitled

to bore wells for natural gas and oil, had no title to those substances, as owner, until they were actually reduced by him to possession. As pointed out in our original brief, the rule of property in Texas is that the owner of the surface is the absolute owner in fee of all the oil and gas in and under the boundaries of his land and that he has the absolute right to drill wells thereon and capture the oil and gas in and under his land, even though a portion thereof may come from the land of his neighbor by reason of its fugitive character. Appellees have cited no case, and we believe none can be found, from a Court sitting in Texas upholding attempted regulation where there was no evidence of physical waste. But what materiality has the discussion of this proposition to the issues here? If appellant were attacking the ratable production provision of such act, appellees' "correlative rights doctrine" might have some application. Appellees do not point out wherein the classification provisions of the act were necessary, or bear any relation, to the accomplishment of the adjustment and protection of the correlative rights of common owners in a common reservoir. The purpose of the challenged act is shown by its "Declaration of Policy," which we quote:

> "Section 1. Declaration of policy: In recognition of past, present, and imminent evils occurring in the production and use of natural gas, as a result of waste in the production and use thereof, in the absence of correlative opportunities of owners of gas in a common reservoir to produce and use the same, this law is enacted for the protection of public and private interests against such evils by prohibiting waste and compelling ratable production."

From the declaration of policy, it is obvious that the two questions presented to the Legislature, were to prevent waste and to afford "correlative opportunities of owners of gas in a common reservoir to produce and use the same," which means, in simple and understandable language, to compel the pipe line companies to share their markets and transportation facilities with others who have no market outlet, and to accomplish these two objects waste was prevented and ratable production was required. We submit that the record in this case does not warrant any assumption on the part of appellees, that to accomplish either of the objects above mentioned: the prevention of waste or ratable production, it was necessary for the Legislature to classify and distinguish between sweet and sour gas and prohibit the use of sweet gas in the manufacture of carbon black.

Under Part II of appellees' brief, beginning on page 33 thereof, they say the provisions of House Bill 266 serve to accomplish the conservation of the natural resources of Texas and to prevent disproportionate use thereof, by prohibiting the use of sweet gas in carbon black manufacture.

Under this heading they say that the facts adduced in the record justify the regulation.

On page 37 of their brief, they say that the ratio of sweet gas acreage to sour gas acreage is approximately two to one, and refer to the testimony of appellant's witness, C. Don Hughes, in substantiation of such statement. (R. 138.) Appellees are entirely in error in this statement. The witness Hughes says that there are 1,140,-

000 acres in the Panhandle gas reservoir, of which 270,000 acres are sour and explains the difference in his estimate and that of the Railroad Commission in that he has taken into consideration only that portion of the Panhandle gas area which would produce gas in sufficient quantities to be termed "gas acreage," and has not included in his estimate those strictly low areas which do not produce sufficient gas in wells drilled and which are abandoned as dry holes. The East Panhandle field contains approximately 147,000 acres. The sour gas area lies wholly in the West Panhandle field. Thus it appears that the acreage ratio instead of being two to one is nearly four to one. They further say that the ratio of sweet gas reserves to sour gas reserves is approximately two to one and that the ratio of the demand for sweet gas to be utilized for light and fuel, and the demand for sour gas to be used for carbon black manufacture, is approximately two to one. Likewise, these statements are obviously incorrect and have no fact basis in the record. The only witness the State produced who attempted to testify as to the present recoverable reserves in the sweet and sour areas, was the witness Craig, geologist for Phillips Petroleum Company, and he comes to the preposterous conclusion that the sour area contains, in present recoverable gas, exactly as much per acre as the sweet area (R. 333-335), although it is undenied in the record that the sour area has an average of 94 pounds lower rock pressure than the average pressure of the sweet area. The fallacy of Mr. Craig's deductions are pointedly brought out by the witness Hughes, who, analyzing the affidavit of Mr.

Craig, shows that Mr. Craig arrived at his conclusion of the present recoverable gas in place, simply by dividing the present estimated gas in place between the sweet and sour areas on a direct proportion to the number of acres in each, the sour and sweet areas, and did not take into consideration the difference in thickness of pay, porosity, open flow capacity or pressure condition prevailing. (R. 359-360.)

Further, they say that the ratio of the demand for sweet gas to be utilized for light and fuel and the demand for sour gas to be used for carbon black manufacture is approximately two to one, and refer to the testimony of their witness, A. M. Crowell. (R. 325.) The witness Crowell refers to the order of the Railroad Commission, effective for the month of February, 1936, as authority for his statement, from which order it appears that the Commission found that the reasonable market demand for sweet gas for the West Panhandle field is 625,803,000 cubic feet per day, and the demand for sour gas, which is located only in the West Panhandle field, is 487,705,000 cubic feet per day. It is true that the Commission, in such order, arbitrarily attempted to limit the withdrawal of sour gas to 378,693,000 cubic feet per day, stating that there was available casinghead gas more than adequate to supply the additional gas demanded for uses to which the sour gas may be legally put. In this order the Railroad Commission states that they so limit the sour gas withdrawal *in order to arrest the migration of dry, sweet, natural gas into the sour gas area.* (R. 285-296.) The Commission did this in the face of the express

provisions of the act authorizing withdrawal from the sour, dry gas area sufficient to meet the carbon black requirements, and in addition thereto authorizes the utilization of casinghead gas for the purpose of extracting its gasoline content and permitting the residue to be popped into the air. It is significant to note that this order, effective for the month of February, 1936, is the only month the Commission attempted to arbitrarily fix the rate of withdrawal in the sour area at any fixed percentage, and such order provides for the lowest allowable withdrawal from the sour area for any month. This cause was tried in February, 1936. In the Commission's order of February 20, 1936, effective for the month of March, it will be noted that it found that the market demand for sweet gas in the West Panhandle field was 669,000,000 cubic feet daily and that the market demand for sour gas in said field, was in excess of 435,000,000 cubic feet daily. (R. 289.) It will further be noted that in the Commission's order of December 18, 1935, effective for the month of January, 1936, the Commission found that the market demand for sweet gas in the West Panhandle field was 608,552,000 cubic feet per day, while the market demand for sour gas in said field was 520,496,000 cubic feet per day. Nothing has changed in the physical setup of the field, the operating conditions or capacities of the carbon black plants, to cause any reduction in the carbon black demand. (R. 360.) It, therefore, appears from the record that there is no basis for the assumption of appellees that the ratio of the demand for sweet gas, to the demand for sour gas, is approximately two to one. Considering the fact that

appellees refer only to the month of February allowable, which is probably the peak month of the year, and which greatly exceeds the average for the year for light and fuel use and embodying further the Commission placed the sour gas demand at a purely arbitrary figure. It is apparent that the ratios of sweet and sour demands are approximately equal. According to the records of the Railroad Commission, the first six months of 1935, the carbon black requirements from the West Panhandle field averaged 472,000,000 cubic feet per day, and the sweet gas requirements from the West Panhandle field averaged 493,000,000 cubic feet per day. (R. 190.) The trial court found that the average daily consumption of the carbon black plants in the Panhandle field is only slightly less than the average daily amount taken by all of the pipe lines for fuel and light purposes. (R. 101.)

It is significant to note that while appellees are on their comparison, they do not mention the total open flow of the sweet gas wells as compared to the total open flow of sour gas wells. According to the Railroad Commission's tests in July, 1935, the total daily open flow of all sweet wells in the West Panhandle field was 7,587,198,000 cubic feet, whereas, the entire open flow for all sour wells located in the West Panhandle field, was only 1,619,254,000 cubic feet. This does not take into consideration the East Panhandle field where no sour wells are located. Thus, the ratio of total sweet gas open flow of the West Panhandle field to the sour gas open flow of such field, is more than four to one.

We have gone into some detail in presenting the record in respect to this matter for, in our opinion, it has a vital bearing on the question whether or not the classification complained of bears a reasonable relation to the objects sought to be accomplished by the act, (1) prevention of waste, and (2) ratable production. If the term "waste" embraces disproportionate use as advanced by appellees under this heading, then we say that by reason of the very facts detailed above, the classification in question does not prevent disproportionate use, but actually creates disproportionate use by permitting the sour gas area to produce approximately four times as much as the act permits the sweet gas area to produce. Likewise, the classification has no relation to ratable production, but, on the other hand, causes unratable production and thus defeats rather than accomplishes the objects of the act.

Obviously the discussion of appellees, above referred to, is made for the purpose of minimizing as much as possible the inequality of production authorized by the act, by reason of the very classification in question which they are attempting to uphold, when the overwhelming evidence in the record shows that the act, by reason of such classification, authorizes and permits grossly unequal withdrawals of gas from a common reservoir, in that it permits the production from the sour area to the extent of its market demand, and the production from the sweet area to the extent of its market demand, and the result of the operation of this act is graphically pictured by the witnesses Hughes, Thompson and Massa (R. 139-140, 151-152, 155, and

from their testimony it is conclusively established that the sour area will be permitted to produce at a rate of approximately four times greater than the sweet area and that the present migration of sweet gas into the sour area will not only continue into the future, but will be greatly accentuated, and that such classification therefore can bear no reasonable relation to the purposes sought to be accomplished, but is purely arbitrary.

Appellees, on page 52 of their brief, say that it is not the contention of the State that appellant is failing to make a reasonable efficient use of the channel process for the manufacture of carbon black, but that the State contends this process is inherently wasteful and that it requires a disproportionate amount of the State's fuel supply. That may be appellees' contention, but the record fails to sustain it. On the other hand, as pointed out in our original brief, the record here overwhelmingly shows that there is no waste of gas when the same is used in the manufacture of carbon black. Appellees refer the Court to certain sources of information which, they say are within the scope of judicial knowledge, and mention:

1. Chemical and Metallurgical Engineering, February, 1936;
2. Department of Interior Bulletin No. 192;
3. Department of Interior Technical Paper No. 351;
4. Final Report of the Federal Trade Commission to the Senate of the United States;
5. Industrial and Engineering Chemistry, Volume 23;
6. Mineral Resources of the United States, 1931;
7. Mineral Market Report, May 9, 1935;
8. Mineral Year Book, 1934.

These documents were not offered in evidence upon the trial of this cause and we do not believe that they are such that the Court can take judicial knowledge of, or that the statements contained therein can be considered as evidence in this case. We are aware of the presumption, erroneous as it may be, that the Legislature, in passing the act under attack, is presumed to have had knowledge of the various articles and technical data concerning the subject matter under treatment, but we know of no rule of evidence which would permit this Court to consider the technical bulletins and documents referred to as evidence of the truth of the statements therein contained, or as evidence relating to the issues now before this Court. For instance, the Department of Interior Bulletin No. 192 was issued fifteen years ago. What evidence do we know that the Department of Interior had before it as the basis for such bulletin? To consider such documents as evidence in this record would deny appellant the right of cross examination of the writers of the same to test their knowledge of the facts concerning which they attempt to testify, and it might be that if the writers of such documents were subjected to interrogation concerning the matters treated they would find themselves in the same position as the State's witness, Patten, when he demonstrated on cross examination that he knew nothing about the subject matter concerning which he attempted to testify. Are the facts and the issues in this case to be tried on some technical abstract statement found in some technical magazine of fourteen years ago, or should appellees have produced testimony, if it were available, in rebuttal to the evi-

dence introduced by appellant? We say that they cannot now attempt to make a record in this case by referring the Court to some paper or document that somebody, years ago, wrote on the subject.

On page 59 of appellees' brief they say that the State's interests in the conservation of sweet gas for light and fuel purposes and devotion of such gas to the most beneficial uses sustains the regulations.

Our answer to this argument is that the classification complained of has, and bears, no reasonable relation to the conservation of sweet gas for the uses that the act authorizes the same to be utilized for, when applied to the Panhandle gas reservoir. We do not here make the contention that the classification, in its application generally to the oil and gas fields in Texas, is invalid, or that it has no relation to the above mentioned object, if the same be an object of the act, but we do say that when the classification is applied to the Panhandle gas reservoir, which admittedly is a common or single reservoir containing both sweet and sour gas between which there is no structural barrier, and withdrawal of gas in one portion of such reservoir will affect the ultimate recovery of gas in the balance of the reservoir; when there is already a lower pressure condition prevailing in the sour gas area than in the sweet area to the extent of 94 pounds per square inch, and where the act authorizes withdrawal from both the sweet and sour areas to the extent of the respective market demands, and where the evidence, as shown by the record here, conclusively establishes that, under the operation of said act in the Pan-

handle field, the sour gas area will be permitted to produce at a rate of from two to four times greater than the sweet gas area, there cannot be the slightest question concerning the conclusion that the classification in question has not, and cannot bear, any reasonable relation to the conservation of the sweet gas in the Panhandle common reservoir for the purposes that the statute authorizes the same to be utilized for.

Under Part III of appellees' brief, beginning on page 63 thereof, they say that appellant is not denied the equal protection of the law; that the classification complained of is reasonable and that the same bears a reasonable relation to the purposes for which the statute was enacted: The protection of the paramount interests of the State and the correlative rights of the owners of natural gas in common reservoirs.

Under this discussion, appellees make a number of deductions, many of which are immaterial and have no relation to the stated objects of the act above mentioned, while other deductions made by them have no basis of fact in the record. The first deduction they make is that sweet gas, in its natural state, is usable for light and fuel and also for carbon black; that sour gas, in its natural state, is usable for carbon black, but is not usable for light and fuel without undergoing treatment for the purpose of eradicating the hydrogen sulphide content, however, they have substantially the same B. T. U. content and carbon black productivity. The record discloses that the cost of eradicating the sulphur content in sour gas is infinitesimal, not exceeding one-fourth cent per

thousand cubic feet, and the only difference, therefore, between the two types of gas is commercial, which will not support the classification.

Under deduction 6, they say that the relation of sweet gas reserves and sour gas reserves is commensurate with present demands for sweet and sour gas. We say the record does not support any such conclusion, as we have heretofore pointed out in this reply.

Under deduction 7, they say that gas sold for light and fuel purposes brings, on an average, a substantially higher price than gas sold for carbon black manufacture and stripping purposes. The record shows that the average price of gas in the Panhandle field for industrial and commercial use is three cents per thousand cubic feet, and that the value of 1,000 cubic feet of gas, utilized for the manufacture of natural gasoline and carbon black, is seven and one-half cents. (R. 360.)

They say, under deduction 8, that to permit the manufacture of carbon black from sweet gas would result in the eventual abandonment of sour gas zones by carbon black manufacturers, and their disproportionate demand for sweet gas, since sweet gas does not have a deteriorating effect upon the carbon black plant. In the first place, we say there is no evidence in the record that justifies any such conclusion on the part of appellees, but on the contrary, the evidence militates against such a fantastic idea. They admit under deduction 2, that the carbon black factories have been built and constructed in the sour gas area. They further say that carbon black can be manufactured from sour gas without treatment and

the evidence supports this, but there is absolutely not a line of evidence in the record to the effect that the corrosive effect of sulphur is to such a degree that will justify the carbon black industry in dismantling its carbon black factories, costing millions upon millions of dollars, and moving them to the sweet gas area, when as a matter of fact, undenied in this record, the carbon black manufacturers, at their present location, are now processing, and will continue to process, sweet gas migrating from the higher sweet areas to the lower sour areas. Further than this, the record does not show that since the passage of the sour gas law in 1933, and permitting the utilization of sweet gas for carbon black manufacture, that a single carbon black plant has been constructed in the sweet area in the Panhandle field for the purpose of processing wholly sweet gas.

Appellees further say, under deduction 9, that the invasion of the sweet gas zone by carbon black manufacturers would result in a tremendous intermingling of sweet and sour gas, brought about by the disproportionate taking as between the sweet and sour zone, and would result in tremendous differences in pressure gradients, brought about by unequal withdrawals in the sweet gas zone through the imposition of a double demand upon the sweet gas zone. We submit that there is not a scintilla of evidence in the record warranting any such character of deduction. In the first place, assuming that the carbon black manufacturers would dismantle their plants and all move to the sweet area at an economical loss of millions of dollars, yet under the evidence of this case there

could be no intermingling of sweet and sour gas for the reason that the sweet area has an average higher pressure of 94 pounds than the sour area. In the second place, assuming that intermingling did occur, that would be unimportant for the reason that the act under attack does not declare that the intermingling of sweet and sour gas constitutes waste, and neither is the act designed to prevent the intermingling of gas, and we submit that, under the evidence in the record, not only does the act fail to prevent intermingling of gas, but that its operation, by reason of the very classification in question, would greatly increase and accentuate the intermingling of gas by actually permitting and authorizing unequal withdrawal in the sweet and sour zones, as we have heretofore pointed out. This is established beyond any point of controversy. Moreover, as far as the ultimate recovery of gas from the Panhandle reservoir is concerned, it is absolutely immaterial where the carbon black plants are located, so long as the act permits withdrawal to the extent of the market requirements of light and fuel and carbon black demands.

We do not know what appellees mean when they say that if the classification provisions of the act were stricken out, it would result in disproportionate production. When other provisions of the act, not here under attack, require ratable production, certainly under the evidence in the record, the very classification in question which appellees are attempting to uphold, defeats the purpose of the act—ratable production—by causing enormous unratable and disproportionate production between the sweet and sour zones of the Panhandle reservoir.

The appellees further say, under deduction 10, that the importance of the Panhandle field as a source of supply for light and fuel for far-flung areas of the United States, calls for the safeguarding of this great fuel supply, and to prevent the use of sweet gas for carbon black manufacture would subject the sweet gas supply to a double demand. As we have pointed out in our original brief and heretofore in this reply, the record is unchallenged to the effect that the classification in question can have no relation to the conservation of the sweet gas supply for light and fuel use when applied to the Panhandle reservoir. The act may have this effect when applied generally to the other gas fields in Texas and particularly those reservoirs that do not contain both sweet and sour gas in the same structural formation, but it cannot have such effect when applied to the Panhandle reservoir, and we make the contention only that the classification provisions of said act under attack, are invalid in their application to the Panhandle field where appellant's properties are located, by reason of the facts in the record, heretofore discussed. Of course, there is no fact basis in the record for the assumption of appellees that if the carbon black plants were moved to the sweet areas, tremendous difference in pressure gradients would be brought about and that the sweet gas zone would carry a double demand. May we suggest that, under the record in this case, the actual result and effect of the operation of the complained of provisions of the act, will be that the sour gas zone will carry a triple demand: first, fuel; second, carbon black; and third, gasoline manufactured from casinghead gas, the residue

from which may be popped into the air and absolutely wasted. Is it not more logical to say, under the operation of the act, the tremendous pressure differentials now existing will become more pronounced and it will be impossible to have a uniform lowering of pressure over the entire reservoir which the act, by its ratable production provisions, seeks to accomplish? Were it feasible, practical and economically possible to dismantle the carbon black factories now located in the sour area and remove them to the sweet area, would not the purposes of the act, which appellees say it was designed to accomplish—uniform production—come nearer of being accomplished than to prohibit the use of sweet gas in the manufacture of carbon black?

Beginning on page 75 of their brief, appellees cite numerous authorities holding that the State, under its police power, has the right to classify. Appellant has never raised any contention about the power of the Legislature to classify. Admittedly, the Legislature of Texas has such power so long as such classifications are in the proper sphere and bear a reasonable relation to the object sought to be accomplished. The contention we do make is that the complained-of provisions of the act, classifying and distinguishing between sweet and sour gas, as applied to the Panhandle gas field, have and bear no reasonable relation to the object sought to be accomplished and are, therefore, purely arbitrary.

Among the cases cited is the case of *Walls vs. Midland Carbon Company*, 254 U. S. 300, 65 L. Ed. 276, 41 S. Ct. 118. We believe that in our original brief we have clearly distinguished the Walls case from the one at bar, but

in view of the fact that appellees have laid such great stress upon this case, we shall point out further wherein the Walls case has no application to the issues presented here:

Appellees, in an attempt to minimize the distinction we have made in our original brief, say, on page 93 of their brief, that the Wyoming Legislature drew an arbitrary line in a circle around an incorporated town or industrial plant; a well within a foot of that circle had its production dedicated to domestic and industrial purposes; a well one foot outside the circle could be used for carbon black purposes without even stripping the gas for its gasoline content, or one could strip the gas and blow the residue into the air; that in the present instance, the Texas Legislature classified according to types of gas and prohibited the use of gas adaptable to pipe line purposes for carbon black manufacture and drew a line or definition scientifically and physically adapted to the situation, and draw the conclusion the classification under attack is more reasonable than the classification made by the Wyoming statute. In answer to this, we say that the facts of the Walls case do not warrant the deduction made by appellees—that the field where plant was located lay partly within the line of demarkation and partly without. Indeed, the evidence in that case tends to show exactly the opposite: that the entire field lay within the designated circle; that there was no question of drainage of the Midland Carbon Company's gas by others engaged in the same business, on the outside of the circle, and neither was there a

question of drainage of gas from the Carbon Company's property to others within the field and utilized by them for carbon black manufacture. Undoubtedly, the classification under the Wyoming statute as far as the facts in that case, as disclosed, are concerned, bore a reasonable relation to the conservation of the fuel supply of the field in which the Carbon Company's factory was located, whereas, the facts in the case at bar preponderately establish that the enforcement of the provisions of the act complained of will not, and cannot, conserve the sweet gas supply in the Panhandle reservoir for the uses for which the act authorizes such gas to be utilized for, but that such gas will be drained and drawn to the sour producing area and there produced and utilized in the manufacture of carbon black. There is no escape from this effect and actual result of the operation of said act so long as it authorizes and permits withdrawal of gas from the Panhandle reservoir to the extent of the market requirements of carbon black manufacture, although such withdrawal may be confined to the sour area.

This Court, in discussing the Walls case, on page 317, said:

> "The determining consideration is the power of the state over, and its regulations of, a property in which others besides the companies may have rights, and in which the state has an interest to adjust and preserve, natural gas being one of the resources of the state. *And, in this consideration, it is more important to consider not for what a particular owner uses the gas, but the proportion of his use to that of others.*"[1]

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[1]Italics ours.

In that case the Midland Carbon Company was taking a disproportionate amount of the gas in its physical state, as compared to the taking by other producers in the field for light and fuel purposes. This Court held that, under the property rule prevailing in Wyoming, the rights of the common owners could be protected by preventing disproportionate withdrawals by one from a common reservoir, irrespective of the question of waste. We say that under the property rule in Texas, the minerals having been released to the owners of the soil by the Texas Constitution, the Legislature of Texas is powerless to regulate the use and enjoyment of such minerals by the owners thereof, save and except only to prevent physical waste of the same. However, there is no disproportionate taking of gas in its physical state by appellant, as compared to the taking by others, for the very act in question requires ratable production and limits the amount that can be produced in any event to 25% of the open flow capacity of the wells.

It will be further observed that in the Walls case the testimony showed that the gas contained from 33 to 40 pounds of carbon per thousand cubic feet and that the Carbon Company was only recovering one and three-fourths pounds per thousand cubic feet. Under the record in that case, this Court rightly assumed that there was great disparity between the carbon content and that recovered. This assumption, in that case, was warranted by reason of the fact that the evidence there did not attempt to show any difference between carbon black and the element carbon. As far as the record in

that case is concerned, presumptively the two were the same. Naturally this Court, in that case, concluded that in the manufacture of carbon black a disproportionate amount of gas was utilized in comparison to the amount of recovery, and that such use, therefore, constituted waste, but the record here overwhelmingly establishes that there is no inefficiency in the channel process employed by Combined Carbon Company, and that such process recovers all of the carbon black contained in the gas; that carbon black and element carbon, which is a combination of hydro carbons contained in natural gas, are not by any means one and the same, and cannot any more be compared as identical products than high-grade steel can be compared to the ore from which it is manufactured. There was no such evidence in the Walls case, and this record does not justify the conclusion that in the manufacture of carbon black, gas is disproportionately utilized, or that waste occurs.

Appellees also cite the case of *Lindsley vs. Natural Carbonic Gas Co.*, 220 U. S. 61, 55 L. Ed. 369. Of course, that case has no application for the reason that the facts there showed that there was actual physical waste occurring in the operations, which the act under consideration prohibited. We quote from the opinion in that case as follows, which clearly distinguishes it from the case at bar:

> "The mineral waters and carbonic gas exist in a commingled state in the underlying rock and neither can be drawn out without the other. They are of value in their commingled form and also when separated, but the greater demand is for the gas alone.

> Influenced by this demand, some surface owners having wells bored or drilled through the rock, engaged in extensive pumping operations for the purpose of collecting the gas and vending it as a separate commodity. Usually, where this is done, an undue proportion of the commingled waters and gas is taken from the common supply *and a large, if not the larger, portion of the waters from which the gas is collected, is permitted to run to waste.*"[1]

The evidence in that case showed a physical waste of a mineral resource, and the state under its police power had the authority to prevent it.

They also cited the case of *Bacon vs. Walker*, 204 U. S. 311, 51 L. Ed. 499. This case involved a statute of the State of Idaho, prohibiting sheep owners from permitting their sheep to graze within two miles of the possessory claims or dwelling houses of other people. Sheep and cattle cannot be grazed on the same lands or watered at the same watering places. The scent characterizing sheep is offensive to cattle and cattle will not feed where sheep graze or drink where sheep drink. Certainly, the prohibition in that case bore a reasonable relation to the object sought to be accomplished. Moreover, the regulation affected the public domain and the State of Idaho could prohibit the grazing of sheep on any portion of its public lands, for its interest is proprietary and not merely governmental, as is the interest of the State of Texas in protecting its natural resources. The State of Idaho could, therefore, place any limitation it might see fit, in permitting the use of its lands for the grazing of sheep.

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[1]Italics ours.

Appellees have cited numerous cases on the power of the Legislature to classify, but all of such cases, in effect, adhere to the principle as laid down by this Court in the case of *Ohio Oil Co. vs. Conway*, 281 U. S. 146, 74 L. Ed. 775, that the classification "must rest upon some ground of difference having a fair and substantial relation to the object of the legislation so that all persons similarly circumstanced shall be treated alike." What substantial relation does the provisions of the act under attack bear to the object sought to be accomplished? If the object sought to be accomplished is to prevent waste, then we say that such provisions have no relation to such object for the reason that there is no waste in the use of gas in the manufacture of carbon black. The Legislature determined this to be a fact when the act provides that the use of sour gas in the manufacture of carbon black shall not constitute waste, for the reason that the record shows that there is no difference between sweet and sour gas contained in the Panhandle reservoir. Aside from the legislative determination, the record shows there is no waste of gas when used in the manufacture of carbon black. If it can be said that the purpose of the act was to conserve sweet gas for the uses for which the same is authorized to be utilized for, under the act, then we say, as we have heretofore pointed out from the record in this case, that such classification has no relation to that object. If it can be said that the purpose of the act was to accomplish ratable production, then we say that the classification in question can have no relation to that object for the reason that instead of tending to create ratable production, the enforcement

of such provisions would cause unratable production by causing unequal withdrawals, as we have heretofore pointed out. Under the operation of the act, are "all persons similarly circumstanced" treated alike? Is appellant treated the same as its neighbor engaged in the same character of business just across the sweet and sour gas line, when the facts in the record conclusively establish that the majority of appellant's wells and gas reserves are taken from it and dedicated to a use for which appellant does not now have, and neither can it hope to have in the future, any outlet, with the result that appellant's gas will be drained and drawn to the sour producing wells of his neighbor across the line, and there appellant's sweet gas will be produced and utilized by its neighbor for the identical purpose that the act denies appellant the right to utilize its gas for?

On page 85 of appellees' brief they cite the case of *Bayside Fish Flour Company vs. Gentry*, 279 U. S. 422, 80 L. Ed. 722, 55 S. Ct. 513, and say that this case is in complete answer to appellant's charge of discrimination, enforced by the provisions of the act under attack, between carbon black manufacturers who require the use of fuel for the manufacture of carbon black and other manufacturers who require fuel in the manufacture of their products. This case involved a California statute, prohibiting the reduction of fish, other than the fish offal, into fish flour, fish meal, fish scrap, fertilizer, fish oil, or other by-products. The purposes of the statute was to conserve the edible portion of fish for domestic consumption. The Bayside Fish Flour Company operated

a reduction plant. This Court held that the California regulation had a reasonable relation to the object sought to be accomplished: namely, the conservation of fish for domestic food supply. That case, of course, has no application on the point for which appellees cite it. There was no discrimination there between appellant and others operating canning factories and who were not engaged in the business of reduction. In this case, appellees say that one of the objects sought to be accomplished by the act is the conservation of sweet gas for fuel purposes in all and any kind of manufacturing businesses, requiring fuel in the manufacture of their product, with the exception of the carbon black industry. The carbon black manufacturer, although he likewise requires fuel in the manufacture of his product, is singled out by the statute and denied the right to use sweet gas for fuel purposes in such manufacture.

On page 105 of appellees' brief, they say that appellant makes the contention that, as between the sweet and sour gas zones, there will occur disproportionate withdrawals since, under the operation of the statute, the market demand for each type of gas is allocated to each zone and by reason of the smaller area of the sour gas zone in comparison with the sweet gas zone and the disproportion in potentials of such zones, the withdrawals between such areas will be disproportionate under the order of the Commission prorating the field, which will cause drainage from the sweet to the sour gas zone. They then say that in respect to this contention, that appellant is not complaining against the classification between

sweet and sour gas, but appellant's complaint is directed against the ratable production provisions of the act, and that in view of the fact appellant has abandoned its attack upon the ratable production provisions of the act in this cause, appellees cannot understand why appellant should enter into a discussion with respect to disproportionate withdrawals in the sweet and sour zone. Appellees apparently have failed to observe the importance and significance of these facts as presented in our original brief, and in other portions of this reply, of the facts in the record showing the great disproportion and inequality of withdrawals that will result between the sweet and sour gas areas under the operation of the act by reason of the very classification here attacked. We make no attack upon the orders of the Railroad Commission, requiring ratable production. The inequality of withdrawals, which we have pictured from the facts of record, as resulting from the operation of the act, cannot be cured by any order of the Railroad Commission, for the act itself authorizes withdrawals in the sweet and sour zones to the extent of the respective market demands, for light and fuel use and carbon black manufacture. The materiality and importance of these facts which we have pointed out, is to show that they conclusively establish that the classification in question can have no reasonable relation to the object sought to be accomplished by the act, whether such object be (1) conservation of sweet gas for the purposes authorized by the statute, or (2) ratable production.

One page 110 of appellees' brief, in an attempt to minimize the force of appellant's argument as presented

in its original brief to the effect that if the complained-of provisions of said act be enforced against it, appellant's gas will be dedicated to a use for which it has no outlet and will be actually drained to adjacent sour gas wells and there appropriated by the producers of such wells and used in the manufacture of carbon black, by advancing the proposition that "appellant is not in a position to complain of conditions to which it has contributed," and under such proposition they state that appellant's gasoline plant has been a contributing factor to the lowering of the pressures in the vicinity of its plant and that appellant's neighbors will not drain appellant's gas underneath its leases so classified by the Commission as sweet gas, for the reason that the pressures existing in the vicinity of Sanford, Texas, where appellant's gasoline plant is located, are lower than in other regions surrounding this region. As authority for these statements they refer to the testimony of their witness, F. V. L. Patten, a chemical engineer, who has been in the employ of the Railroad Commission since June, 1935, when he finished his studies at the University of Texas. Attached to the affidavit of this witness is a pressure map attempting to contour the immediate and local vicinity of the Sanford area. The record discloses that this witness has testified to so many matters and made so many affidavits in this case that we feel that it is entirely within the bounds of propriety to say that some of which have no relation to his technical training.

In answer to this contention, we refer the Court to the testimony of the witness, Mr. Hughes, consultant geologist, who has spent many years in the Panhandle field and who, for a number of years was chief geologist for the Empire Gas & Fuel Company in the Panhandle area, and who, in analyzing Dr. Patten's pressure map, says:

> "The pressure contour map shown by Dr. Patten in the immediate area around Sanford is in general about right, but in detail wrong. The locations of the wells, as shown on the map, in many instances are so incorrect that it is difficult to check his accuracy; all of the wells in the area are (fol. 581) not shown; the Henderson Company plant is incorrectly located; of more importance is the incorrect location of the well showing 212 pressure in the south part of Section 80, which well is actually located in the very northern part of the section, and destroys his conclusion to the effect that the small pressure basin in the Sanford area is closed on the east, as he shows. As a matter of fact, this small pressure basin shown by Mr. Patten is an irregularity in the much larger pressure trough extending from nearly the west line of Hutchinson County eastward, widening and deepening to the edge of the field east of Borger. But, an inspection of the map attached to such purported statement readily discloses that the low contour as shown on such map is in the sour area. It also discloses that all of the Henderson sweet gas wells are west or southwest of the low enclosure and that actual drainage is occurring from them to the low area. Such map further discloses that the sour area covering and immediately adjacent to the low contour as shown on such map contains twenty actively produced, and now producing, sour gas wells, of which only four are connected with The Henderson Company.

"I have prepared a map covering the entire southwest quarter of Hutchinson County, which I attach hereto, and upon which I have delineated by curves the pressure condition obtaining in such area and have located the sweet and sour gas line, from which the pressure trough I referred to above can be readily seen, with the Sanford area as a widening area near its west end, but with the low near Borger to the east. The present sour and sweet line is shown in red and it is apparent that practically from the west line of Hutchinson County the drainage is along this line eastward from the sweet into the sour. Such condition is true also from the limits of my map eastward throughout the (fol. 582) entire balance of the sour area to its end in Gray County, south of Pampa; that is, the drainage is definitely from the sweet into the sour area. Northwest of the limits of my map a low pressure area, near the Shamrock Oil & Gas Company's plant northeast of Dumas in Moore County, has started a similar picture there." (R. 357-358.)

Mr. Hughes further testified that of the 33 wells set out in Table 2 of Mr. Patten's testimony (R. 316), only 11 are shown by the tests of the Commission to contain sweet gas, while the remaining 22 wells have been classified by the Commission as sour gas wells. The average rock pressure of such 22 sour wells is 192.4 pounds, or 4.5 pounds less than the average pressure of the 14 sweet wells of appellant involved in this case; that the average rock pressure for all of the sour wells in Hutchinson County, according to the tests of the Railroad Commission, is 172.5 pounds, an average of 24.41 pounds lower than the 14 sweet wells of appellant, and that as a result of such condition there is no question but that migration of gas from the sweet wells of

appellant to the sour wells, is now taking place and that this migration will be increased in the future if appellant's wells are shut in. (R. 357.)

Appellees, on page 111 of their brief, say that appellant has withdrawn many more times as much gas per acre as the average for the field and has withdrawn between three and four times its estimated original reserve and again refer to the testimony of their witness Patten. (R. 314.) We do not understand the purpose of this discussion, other than it be to infer that appellant has heretofore withdrawn more than its share of gas originally in place, and, therefore, appellant has now no complaint. Our answer to this argument is that whatever volume of gas appellant has withdrawn from its leases in the past, it had the right to do so and such withdrawals were lawfully made and that the statute under attack does not attempt to fix the various rights of the owners of gas in the Panhandle reservoir in relation to the estimated amount of original gas in place, and appellant is only one of fifty-some gasoline extraction plants in the Panhandle field and operating similarly to them. The record discloses that the Phillips Petroleum Company had constructed and was operating a gasoline extraction plant in the Sanford area prior to the construction of appellant's plant (R. 337); that the 14 wells of appellant, classified as sweet gas wells, are located upon leases totalling 980 acres and have produced a total of 60,558,045 M. C. F. of gas, or an average 61.8 million per acre; that the average rock pressure of such 14 wells is 196.91 pounds and their open

flow totals 197,900,000 cubic feet; that for the purpose of comparison of such wells, 14 wells connected to the plant of Phillips Petroleum Company at Sanford, Texas, have been selected by the witness Hughes, such selection being made in order to obtain similar acreage, open flow and apparent productive life as that of appellant's wells, which 14 wells so selected, connected with the Phillips plant, are located upon 740 acres and have produced 55,413,223 M. C. F. of gas, or an average of 74.9 million per acre; that their average rock pressure is 183 pounds and their open flow totals 200,800,000 cubic feet. Such wells, so connected with the Phillips Petroleum Company's plant, have produced an average of 13,000,000 cubic feet more per acre than the wells of appellant and have 13.91 pounds lower average rock pressure than appellant's wells, and as a result of which, gas is migrating from the wells of appellant to such wells of the Phillips Petroleum Company.

Further than this the record shows that the Phillips Petroleum Company is producing gas from seven wells in the Sanford area, which are either direct, diagonal or practical offsets to one or more of the wells of appellant, and the production therefrom utilized by the Phillips Petroleum Company in the manufacture of carbon black. (R. 361.) Further than this, the record shows that nine of the fourteen wells classified as sweet, connected with appellant's plant, were acquired by appellant, or gas contracts thereon obtained, since the fall of 1933. (R. 126.)

On page 116 of their brief, appellees say that upon hearing appellant's application for interlocutory injunction, the trial court found that appellant had sufficient gas from its remaining sour wells to fulfill its carbon black requirements, and therefore, appellant showed no irreparable injury; that since such time appellant has obtained an injunction to take sufficient gas from its sour gas wells up to 25% of their potentials to fulfill its market requirements and, therefore, appellant is not injured by the operation of the act. Appellees fail to discern that at the time this case was heard on the application for interlocutory injunction, the potentials of appellant's sour gas wells, as testified to by the witness, C. F. Hall (R. 127), were based upon the Commission's tests in July, 1935. Of course, it is a matter of common knowledge that the withdrawal of gas will reduce the pressure and the potentials of the wells are naturally decreased. The potentials of appellant's wells, therefore, are not constant, the result being that at the time of the trial of this case upon the merits in February, 1936, the potentials of sour gas wells had decreased and 25% withdrawal therefrom was insufficient to meet appellant's carbon black and fuel requirements. A sufficient answer to this contention of appellees is that the District Court, upon the final trial of this cause, found: "Under House Bill 266 such seven wells, which had been classified as sour gas wells cannot be produced in excess of 25% of their potential. When produced at 25% of their potentials the production from such wells is insufficient to supply the requirements of complainant, The Henderson Company." (R. 107.)

The order of the Railroad Commission fixed the allowable production from appellant's seven sour gas wells, effective February 1, 1936, at 9,922 M. C. F. (R. 240.)

Appellees, on page 118 of their brief, say that appellant, during the month of August, 1935, blew into the air 6,679,000 cubic feet of gas. Our answer is that appellant had the right to process gas during such month for its gasoline content without utilizing the residue, for the reason that the statute in question did not become operative as to the venting of gas into the air until October 1, 1935. Appellant, during such month, did no more than all the other gasoline plants in the Panhandle field. Appellees further say that during the month of October, 1935, appellant actually blew into the air from its plant, 28,275,000 cubic feet of gas daily. Our answer is that the State itself filed a suit in the District Court of Travis County, early in the month of October, 1935, for the purpose of suspending the operation of the statute here under attack, and obtained an order of the court suspending the operation of such statute; that during the time that such suspension order was effective, appellant was required, upon the demand of its lease owners, to take the gas from their wells in accordance with the terms of appellant's gas contracts. (R. 135.)

Respectfully submitted,

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